REMEDIAL SITE ASSESSMENT DECISION - EPA REGION 3

PFE ORIGINAL (Red)

Site Name: Cartex Facility **EPA ID#:** PA0000767046 **DSN:** PA-3151

Alias Site Names:

City: Doylestown **County:** Bucks **State:** PA

Refer to Report Dated: *See Below* **Report Type:** *See Below*

Report Developed by: *See Below*

DECISION:

| | **1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:**

| x | 1a. Site does not qualify for further remedial site assessment under CERCLA (No Further Remedial Action Planned – NFRAP)

| | 1b. Site may qualify for further action, but is deferred to: | | RCRA | | NRC

| | **2. Further Assessment Needed Under CERCLA:** 2a. (optional) Priority: | | Higher | | Lower

2b. Activity Type: | | PA | | SI | | ESI | | HRS evaluation | | Other: _____

DISCUSSION/RATIONALE:

The former Cartex Facility property occupies approximately 19 acres and is situated at the northern corner of the intersection of Veterans Lane and Broad Street (address is 160 Veteran Lane) in Doylestown Borough, Bucks County, PA. There currently exist plans for redevelopment of this property, including construction of residential dwellings. With the possible exception of collecting a sample from an industrial supply well at the former Cartex Facility in November 1987, EPA Region III's Superfund Program was never involved with investigations or cleanups at this site. EPA Region III sampled the Cartex supply well, along with wells serving several other residences/businesses located within ½-mile radius, as part of a CERCLA removal action to address elevated levels of chlorinated volatile organic compounds (VOCs) at the Doylestown Ground Water site (EPA identification number PAD982364218). The Doylestown Ground Water site is located approximately 1300 feet S-SW of the former Cartex Facility.

From November 1987 through May 1995, investigations and/or cleanups at this site were undertaken by various environmental consulting firms. These investigations included the following activities: (1) removal of two underground storage tanks (USTs) and surrounding impacted soil at the former main plant building (N-NE portion of the site); (2) collection of shallow soil samples, soil boring (subsurface soil) samples and soil gas samples at the former main plant building; (3) collection of soil gas samples throughout the entire site with a focus on the W-SW portion of the site; (4) excavation of numerous test pits within the S-SW portion of the site and associated collection of subsurface soil samples;) installation of several monitoring wells and collection of multiple rounds of ground water samples and (6) performance aquifer testing. Monitoring wells were constructed in May 1989 (designated WCW-1, WCW-2 and WCW-3), October 990 (designated WCW-4, WCW-5 and WCW-6) and May 1994 (designated S-1 through S-6). Additionally, the existing water supply well was modified to create shallow monitoring well IND-8 and deeper monitoring well IND-2 in the late 1990 early 1991 time frame. With the exception of monitoring wells S-2 through S-6, which were installed within the S-SW portion of the Cartex Facility, all monitoring wells were located at/near the former main plant building. Six rounds of ground water samples were collected between June 1989 and September 1992 at existing monitoring wells along with a follow-on round of sampling in May 1994, which included a one-time sampling event at monitoring wells S-1 through S-6. Finally, another well (WCW-7) was constructed in November 1994 at/near the area of known ground water contamination.

These investigations revealed the presence of chlorinated VOCs in on-site ground water. VOCs that exceeded corresponding federal maximum contaminant levels (MCLs) during at least one sampling round included 1,1-dichloroethene ,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene CE) and vinyl chloride. Elevated concentrations of 1,1-dichloroethane (1,1-DCA), chloroethane and trichlorofluoroethane were also detected in ground water. However, investigations did not reveal levels of VOCs in soil that could be considered represent a significant source of observed VOC contamination in ground water.

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ORIGINAL (Red)

\CT 2 TASKS/FINDINGS:

Prior to undertaking activities under the Pennsylvania Department of Environmental Protection ("PADEP") Land Recycling and Environmental Remediation Standards Act of 1997 (Act 2), Penn Environmental Remediation, Inc. (Penn E&R), on behalf of the Woodbridge Group, evaluated site-specific analytical data and associated information compiled during previous investigations. In consultation with PADEP, the Woodbridge Group demonstrated that concentrations of VOCs in soil would not require further action to attain Act 2 medium-specific concentrations (MSCs) for residential soil (both direct contact and soil-to-ground water standards). The Woodbridge Group also showed that concentrations of VOCs in point-of-compliance" monitoring wells selected in consultation with PADEP (e.g., WCW-4, WCW-5, WCW-6, IND-2 and IND-8) were below Act 2 MSCs (and often non-detect) for ground water (used aquifer with less than 2500 ug/L total dissolved solids). Nevertheless, Penn E&R designed (and PADEP subsequently approved) a limited ground water extraction/treatment system using WCW-7 as an extraction well and the aforementioned "point-of-compliance" monitoring wells to assess system effectiveness. The ground water extraction system was operated from April 1996 through December 1997 during which time the Penn E&R collected samples from the extraction well, "point-of-compliance" monitoring wells and remaining monitoring wells WCW-1, WCW-2 and WCW-3 (sample collection generally limited to the first year of extraction system operation) on a quarterly frequency. Concentrations of VOCs in "point-of-compliance" monitoring wells were below Act 2 MSCs for ground water when the ground water extraction/treatment system ceased operation. Collection and analyses of samples from the "point-of-compliance" monitoring wells in March 1998 again indicated that concentrations were below applicable MSCs. PADEP received a final Act 2 report and "notice of intent to remediate" from the Woodbridge Group on June 4,1998 that documented attainment of Act 2 requirements for soil and ground water. In a letter to the Woodbridge Group dated August 3,1998, PADEP confirmed that the final report met the requirements of Act 2 and granted a waiver of liability.

OST- ACT 2 TASKS/FINDINGS:

Golder Associates, Inc. (Golder), on behalf of Granor Price Homes (GPH) Richland Corporation, collected a limited number of subsurface soil samples at/near the former main plant building in order to supplement previous data. Consistent with observations made during previous investigations, a review of analytical results indicates that soil contamination would not be considered to pose a health concern. Golder also performed air modeling using the highest concentrations of VOCs observed in any on-site monitoring well, including the extraction well, during the May 1996 through March 1998 sampling rounds to predict VOC concentrations in the basements of any residential structures constructed during redevelopment. Based on a risk assessment conducted by Golder, risks posed by volatilization of VOCs from ground water would be below the 1.0 x 10-6 lifetime excess cancer risk and below the hazard index threshold of 1.0 for non-carcinogens. This finding is consistent with the fact that none of the predicted concentrations of VOCs would exceed EPA Region III's current risk-based screening concentrations for ambient air. Finally, based on observations made during a site visit, Golder described other areas of potential environmental concern that should be addressed, to the extent necessary, within the property in its entirety as part of future redevelopment plans (see Section 6.0 of the April 1999 report prepared by Golder). These areas included the following: (1) UST and ancillary piping (presence suspected but no other information provided); (2) well/septic system (presence suspected but no other information provided); (3) lead-based paint (LBP) (although lead sampling was not performed, the presence of LBP in certain structures is presumed to exist); (4) asbestos-containing materials (ACM) (although asbestos sampling was not performed, it appears as though suspect ACM was not observed); (5) polychlorinated biphenyls (PCBs) (although suspected PCB equipment was not observed, PCBs may be associated with fluorescent light fixture ballasts).

PA REGION III EVALUATION OF DOCUMENTATION:

As evidenced by the November 1997 sampling results, the extraction well (WCW-7) was still capturing measurable amounts of VOCs, including TCE at a concentration of 7 ppb (slightly exceeded its federal MCL), when the ground water extraction/treatment ceased operation. Subsequent testing of WCW-7 in March 1998 showed higher levels of VOCs, including the presence of PCE at 122 ppb and TCE at 30 ppb (concentrations exceeded corresponding federal MCLs of 5 ppb for each VOC). The most recent analytical results available for monitoring wells installed at the central portion of the site (i.e., WCW-1,WCW-2 and WCW-3) continued to show elevated concentrations of VOCs. WCW-1, which was last sampled in May 1997, contained 1,1,1-TCA at 210 ppb (modestly exceeded its federal MCL of 200 ppb). WCW-3, which was last sampled in May 1997, contained PCE at 19 ppb and TCE at 41 ppb (concentrations exceeded federal MCLs for each VOC). VOCs were not detected above corresponding federal MCLs in WCW-2, which was last sampled in November 1997. The results from March 1998 testing showed that none of the "point-of-compliance" monitoring wells contained VOCs above corresponding federal MCLs. Based on the aforementioned, and in the absence of any subsequent ground water monitoring data, it is likely that VOCs are still present in ground water beneath the former Cartex Facility and that concentrations of certain VOCs (e.g., TCE, PCE and 1,1,1-TCA) may continue to exceed corresponding federal MCLs.

Nevertheless, it appears as though operation of the ground water extraction/treatment system had somewhat reduced concentrations of VOCs in the central portion of the contamination plume while also serving to ensure that concentrations of VOCs remained below federal MCLs at the boundary of the former Cartex Facility. Furthermore, EPA Region III's CERCLA removal action at the Doylestown Ground Water site, which was completed in September 1991 and involved connection of VOC-affected residences and businesses to an extension of the Doylestown Township water supply line, addressed VOC-contaminated ground water to the extent that the possibility of future human exposure has been reduced. EPA Region III made a no further remedial action planned (NFRAP) determination for the Doylestown Ground Water site on May 22, 1989 and subsequently archived this site from CERCLIS on January 23,1996. Finally, an EPA Region III CERCLA removal action (testing and proper disposal of various tanks, drums and containers) at the Chem-Fab site (EPA identification number PAD002323848), which was completed in October 1995, addressed a possible source of contamination (possibly including VOCs) to ground water. The Chem-Fab site is located approximately 1200 feet south of the former Cartex Facility. EPA Region III made a NFRAP determination for the Chem-Fab site on June 13,1988 and archived this site from CERCLIS on June 13,1988.

EPA Region III agrees that the other areas of potential environmental concern identified by Golder should be addressed, to the extent necessary, within the former Cartex Facility property in its entirety as part of future redevelopment plans. In particular, it should be noted that the circa July 1988 investigation by JACA corporation identified PCBs in transformer oil (samples presumably collected from three separate transformers) at concentrations of 26.9 ppm, 35.2 ppm and 542 ppm. Since this finding was not subsequently discussed in site-related documents made available to EPA Region III, it is suggested that any outstanding issues regarding the condition/disposition of these transformers be satisfactorily addressed (unless this task has previously been accomplished).

Based on EPA Region III's review of the documentation provided by GPH, independent investigations have adequately characterized environmental conditions at the former Cartex Facility to support intended future redevelopment of this property. Moreover, independent cleanup actions undertaken to date have addressed contamination such that further federal involvement under CERCLA is not warranted at this time.

SUPPORTING DOCUMENTATION REVIEWED BY EPA REGION III:

Final Report - 160 Veterans Lane, Doylestown, Pennsylvania, dated June 3, 1998 and prepared by Penn Environmental Remediation on behalf of the Woodbridge Group.

Field Investigation Report - Former Cartex Facility, Doylestown, Pennsylvania, dated April 1999 and prepared by Golder Associates, Inc. on behalf of GPH Richland Corporation.

All site-related documentation will be placed in the 6th floor CERCLA Records Center.

The accompanying CERCLIS Data Entry Form (dated January 14, 2002) authorizes the following changes:

Insert a PA start date and completion date of 01/14/02 with corresponding "N" (no further remedial action planned or "NFRAP") qualifier in CERCLIS. This site is also being archived from the CERCLIS data base since there exist no CERCLA cost recovery issues.

Insert a start date (06/04/98) and completion date (08/03/98) for "Other Cleanup Activity" with corresponding "SR" (PRP-lead under State) qualifier to document the fact that cleanup activities have been completed by a non-EPA Region III party under appropriate State authority (i.e., PADEP Act 2) absent any EPA Region III involvement.

eport Reviewed/Approved

id Site Decision Made By: **Signature:** _____ **Date:** 01/14/02

te Assessment Manager

'A Form # 9100-3